

WHAT IS CLAIMED IS:

- 1      *Sub 1* 1. A pallet, comprising:  
2                spaced first and second decks; and  
3                a plurality of opposed mating areas formed in the first and second  
4 decks, each mating area including alternating projections and recesses, wherein the  
5 projections of the first deck are arranged to be received by the recesses of the  
6 second deck and the projections of the second deck are arranged to be received by  
7 the recesses of the first deck, each mating area further including at least one latch  
8 member extending therefrom,  
9                wherein the latch members of one deck are arranged to engage the  
10 projections of the other deck such that engagement of the mating areas of the first  
11 and second decks securely joins the decks in an assembled configuration.
- 1                2. The pallet according to claim 1, wherein engagement of the  
2 projections and recesses results in a non-planar parting line between the assembled  
3 first and second decks.
- 1                3. The pallet according to claim 1, wherein the projections and  
2 recesses of each deck are tapered to mate with an interference fit.
- 1                4. The pallet according to claim 1, wherein the projections and  
2 recesses of each deck include angled faces which engage to restrain transverse  
3 movement of the assembled decks.
- 1                5. The pallet according to claim 1, wherein when the decks are in  
2 the assembled configuration, corresponding mating areas of the first and second  
3 decks include an alternating arrangement of latch members of the first deck engaged  
4 with projections of the second deck and latch members of the second deck engaged  
5 with projections of the first deck.
- 1                6. The pallet according to claim 1, wherein engagement surfaces  
2 defined by the location of engagement of latch members of the first deck and

3 projections of the second deck are not co-planar with engagement surfaces defined  
4 by the location of engagement of latch members of the second deck and projections  
5 of the first deck.

1 7. The pallet according to claim 1, wherein each latch member  
2 includes an arm portion which projects outwardly from the mating area, a generally  
3 horizontal shoulder portion connected to the arm portion, and a tapered end portion  
4 connected to the shoulder portion.

1 8. The pallet according to claim 6, wherein each projection includes  
2 a receiving face arranged to engage the shoulder portion of one latch member.

1 9. The pallet according to claim 7, wherein the latch member is  
2 flexible, such that engagement of the opposed mating areas causes the projections  
3 to contact the tapered end portions of each latch member and deflect the latch  
4 members outwardly from their resting position, wherein passage of the receiving  
5 face past the tapered portion allows the latch members to return to their rest position  
6 such that the shoulder portions of the latch members engage the receiving faces of  
7 the projections.

1 10. The pallet according to claim 1, wherein the pallet is constructed  
2 from a plastic material, and the first and second decks have reversible  
3 configurations.

1 11. A pallet, comprising:  
2 a lower deck having a plurality of lower deck mating areas; and  
3 an upper deck spaced from and overlying the lower deck, the upper  
4 deck having a plurality of upper deck mating areas complementary to the lower deck  
5 mating areas, wherein each of the lower deck and upper deck mating areas includes  
6 an alternating arrangement of projections and recesses,  
7 wherein during assembly of the upper and lower decks, the  
8 projections of the lower deck are arranged to be securely received by the recesses  
9 of the upper deck and the projections of the upper deck are arranged to be securely

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10 received by the recesses of the lower deck, resulting in a non-planar parting line  
11 between the upper and lower decks.

1 12. The pallet according to claim 11, wherein the projections and  
2 recesses of each deck are tapered to mate with an interference fit, and wherein the  
3 projections and recesses of each deck include angled faces which engage to restrain  
4 transverse movement of the assembled decks.

1 13. The pallet according to claim 11, wherein each of the lower deck  
2 and upper deck mating areas further includes at least one latch member extending  
3 therefrom, wherein the latch members of one deck are arranged to engage the  
4 projections of the other deck such that engagement of the lower deck and upper deck  
5 mating areas securely joins the decks in an assembled configuration.

1 14. The pallet according to claim 13, wherein when the decks are in  
2 the assembled configuration, corresponding mating areas of the upper and lower  
3 decks include an alternating arrangement of latch members of the lower deck  
4 engaged with projections of the upper deck and latch members of the upper deck  
5 engaged with projections of the lower deck.

1 15. The pallet according to claim 13, wherein engagement surfaces  
2 defined by the location of engagement of latch members of the first deck and  
3 projections of the second deck are not co-planar with engagement surfaces defined  
4 by the location of engagement of latch members of the second deck and projections  
5 of the first deck.

1 16. The pallet according to claim 13, wherein each latch member  
2 includes an arm portion which projects outwardly from the mating area, a generally  
3 horizontal shoulder portion connected to the arm portion, and a tapered end portion  
4 connected to the shoulder portion, and each projection includes a receiving face  
5 arranged to engage the shoulder portion of one latch member.

1 17. The pallet according to claim 16, wherein the latch member is  
2 flexible, such that engagement of the corresponding lower deck and upper deck  
3 mating areas causes the projections to contact the tapered end portions of each latch  
4 member and deflect the latch members outwardly from their resting position,  
5 wherein passage of the receiving face past the tapered portion allows the latch  
6 members to return to their rest position such that the shoulder portions of the latch  
7 members engage the receiving faces of the projections.

1 18. The pallet according to claim 11, wherein the upper and lower  
2 deck mating areas include corner mating areas disposed in the corner of each deck,  
3 medial mating areas disposed at both ends of a longitudinal axis of the pallet, and  
4 transverse mating areas disposed along either side of a transverse axis of the pallet,  
5 wherein complementary configurations of projections and recesses exist between  
6 adjacent corner mating areas, between the medial mating areas, and between  
7 adjacent transverse mating areas on opposite sides of the transverse axis within each  
8 deck.

1 19. A two-piece plastic pallet, comprising:  
2 spaced upper and lower decks; and  
3 a plurality of opposed mating areas formed in the upper and lower  
4 decks, each mating area including alternating projections and recesses and a  
5 plurality of latch members extending therefrom, wherein the projections and  
6 recesses of each deck include angled faces which engage to restrain transverse  
7 movement of the assembled decks,  
8 wherein during assembly of the upper and lower decks, engagement  
9 of the corresponding upper deck and lower deck mating areas causes the projections  
10 of the lower deck to be received by the recesses of the upper deck and the  
11 projections of the upper deck to be received by the recesses of the lower deck,  
12 resulting in a non-planar parting line between the upper and lower decks, and  
13 wherein the latch members of one deck are arranged to engage the  
14 projections of the other deck such that when the decks are in an assembled  
15 configuration, corresponding mating areas of the upper and lower decks include an  
16 alternating arrangement of latch members of the upper deck engaged with

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17 projections of the lower deck and latch members of the lower deck engaged with  
18 projections of the upper deck.

1 20. A pallet, comprising:  
2 an upper deck;  
3 a lower deck spaced from the upper deck, the upper and lower decks  
4 having reversible configurations; and  
5 a plurality of opposed mating areas formed in the upper and lower  
6 decks, each mating area including alternating projections and recesses, wherein the  
7 projections of the upper deck are arranged to be received by the recesses of the  
8 lower deck and the projections of the lower deck are arranged to be received by the  
9 recesses of the upper deck, each mating area further including a plurality of latch  
10 members extending therefrom,  
11 wherein the latch members of one deck are arranged to engage the  
12 projections of the other deck such that engagement of the mating areas of the upper  
13 and lower decks securely joins the decks in an assembled configuration.

1 21. The pallet according to claim 20, wherein engagement of the  
2 projections and recesses results in a non-planar parting line between the assembled  
3 upper and lower decks.

1 22. The pallet according to claim 20, wherein the projections and  
2 recesses of each deck are tapered to mate with an interference fit, and wherein the  
3 projections and recesses of each deck include angled faces which engage to restrain  
4 transverse movement of the assembled decks.

1 23. The pallet according to claim 20, wherein when the decks are in  
2 the assembled configuration, corresponding mating areas of the upper and lower  
3 decks include an alternating arrangement of latch members of the upper deck  
4 engaged with projections of the lower deck and latch members of the lower deck  
5 engaged with projections of the upper deck.

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1                   24. The pallet according to claim 20, wherein engagement surfaces  
2 defined by the location of engagement of latch members of the first deck and  
3 projections of the second deck are not co-planar with engagement surfaces defined  
4 by the location of engagement of latch members of the second deck and projections  
5 of the first deck.

1                   25. The pallet according to claim 20, wherein each latch member  
2 includes an arm portion which projects outwardly from the mating area, a generally  
3 horizontal shoulder portion connected to the arm portion, and a tapered end portion  
4 connected to the shoulder portion, and each projection includes a receiving face  
5 arranged to engage the shoulder portion of one latch member.

1                   26. The pallet according to claim 20, wherein the latch member is  
2 flexible, such that engagement of the opposed mating areas causes the projections  
3 to contact the tapered end portions of each latch member and deflect the latch  
4 members outwardly from their resting position, wherein passage of the receiving  
5 face past the tapered portion allows the latch members to return to their rest position  
6 such that the shoulder portions of the latch members engage the receiving faces of  
7 the projections.

1                   27. The pallet according to claim 20, wherein the upper and lower  
2 deck mating areas include corner mating areas disposed in the corner of each deck,  
3 medial mating areas disposed at both ends of a longitudinal axis of the pallet, and  
4 transverse mating areas disposed along either side of a transverse axis of the pallet,  
5 wherein complementary configurations of projections and recesses exist between  
6 adjacent corner mating areas, between the medial mating areas, and between  
7 adjacent transverse mating areas on opposite sides of the transverse axis within each  
8 deck.

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